

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-058982

(43)Date of publication of application : 04.03.1994

(51)Int.Cl. G01R 31/26
G01R 31/18
H01L 21/66
H01L 21/68

(21)Application number : 04-208865

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(22)Date of filing : 05.08.1992

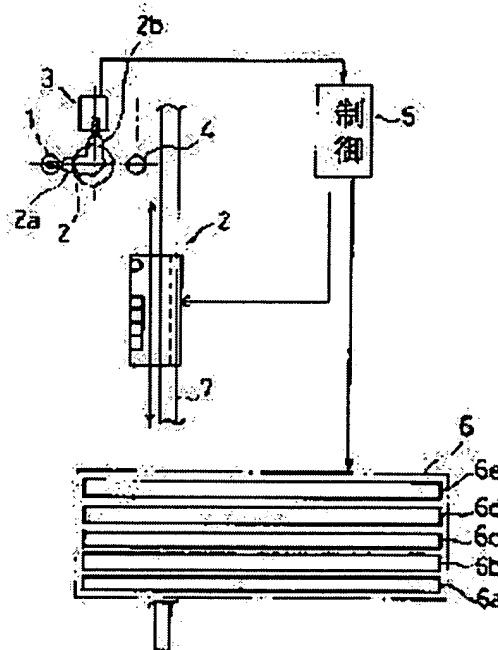
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(54) AUTOMATIC SORTING/TAPING SYSTEM FOR ELECTRONIC COMPONENT

(57)Abstract:

PURPOSE: To obtain an automatic sorting/taping system for electronic components in which sorting by characteristic rank corresponding to measurements and taping for each sorting are carried out automatically in sequence.

CONSTITUTION: The automatic sorting/taping system for electronic components comprises a unit 3 for measuring the characteristics of unit electronic component obtained through lead cut from a manufacturing frame, and means for deciding in which of a plurality of preset classes a measured unit electronic component belongs. The automatic sorting/taping system further comprises a taping unit 6 in which taping mechanisms 6a, 6b corresponding in number with at least the preset number of classes are juxtaposed in multiple rows, and a handling mechanism 2 for transferring a measured unit electronic component to a predetermined taping mechanism depending on the decision result of the deciding means.



LEGAL STATUS

[Date of request for examination] 06.11.1998

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number] 3227543

[Date of registration] 07.09.2001

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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CLAIMS

[Claim(s)]

[Claim 1] The measuring device which performs property measurement of an electronic-parts simple substance by which lead cutting was carried out from the frame for manufacture, A judgment means to judge to any of two or more classifications set up beforehand the measured electronic-parts simple substance corresponds, at least -- the above -- oh, with the taping equipment which comes to install a number equivalent to the number of classifications by which an Ecklonia setup was carried out of taping devices in a multiple string side by side Automatic classification and taping equipment of electronic parts characterized by having the handling device in which the electronic-parts simple substance by which measurement was carried out [above-mentioned] is conveyed in a predetermined taping device according to the judgment by the above-mentioned judgment means.

[Claim 2] The adsorption collet by which the above-mentioned handling device adsorbs an electronic-parts simple substance, Oh, it has two or more label mark stamps showing the classification by which an Ecklonia setup was carried out. the above -- Equipment of claim 1 characterized by constituting so that the label mark twisted to choose the label mark stamp showing a judgment classification to the electronic parts concerned in case the electronic-parts simple substance by which measurement was carried out [above-mentioned] is conveyed in a predetermined taping device according to the judgment by the above-mentioned judgment means may be performed.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] The invention in this application relates automatically the electronic parts which have dispersion in a property to the classification set up beforehand about the automatic classification and taping equipment of electronic parts at a classification part opium poppy and the thing which was made to tape for every classification.

[0002]

[Description of the Prior Art] For example, in spite of manufacturing the field-effect transistor (FET) component incorporated over two or more steps in the PARABONA antenna for satellite broadcasting service reception through the same manufacture process, in a noise figure and gain, dispersion produces it. The thing with large and gain which has a small noise figure is most excellent in the engine-performance target, and three steps of things with such a property can be used for any stage, when included in the PARABONA antenna for satellite broadcasting service reception, for example. although it can generally be used as a component of a third stage regardless of dispersion in a noise figure if gain is large, if gain is small -- a noise figure is [even if] small -- the second step or the object for third stages -- it cannot be used -- the first rank -- it can be used only for a **.

[0003] therefore, gain and the measurement result of a noise figure -- responding -- the first rank -- it will be shipped to what can be used for a **, the thing which can be used for the second step, and the thing which can be used for third stages with a classification part opium poppy and the shipment gestalt taped on the embossing tape for the classification of every.

[0004] Conventionally, the above-mentioned measurement process, the classification division process according to a measurement result, or the taping process for every classification had become an isolated system, respectively, conveyance of the FET component between each process arranged the product in the tray etc., and the help was performing it.

[0005] The trouble [component / this / conventional / FET] of handling is clear. That is, there are many parts by the help in the first place, an operator is [a lot of people] necessary, and a labor cost increases. Since there are many counts which touch a help, there is much generating of the defect by the electrostatic discharge, and the yield falls [second]. It becomes [third] it is long and complicated setting [of manufacturing planning] up the lead time of manufacture.

[0006] The invention in this application is invented under above-mentioned circumstances, automates the activity classified for every property rank according to the measurement result of electronic parts, and taping of the electronic parts for every classification by the simple configuration, and makes it the technical problem to gather the effectiveness to shipment of electronic parts remarkably.

[0007]

[Means for Solving the Problem]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the sketch top view of one example of the invention in this application.

[Drawing 2] It is the side elevation of a handling device.

[Drawing 3] III-III of drawing 2 It is a ***** sectional view.

[Drawing 4] It is the sectional view which meets the IV-IV line of drawing 3 .

[Drawing 5] It is the top view of a taping device and is drawing showing the condition of having removed the taping cassette.

[Drawing 6] It is the side elevation of the device shown in drawing 5 .

[Drawing 7] It is the whole sketch perspective view showing an example of a taping cassette.

[Drawing 8] It is the actuation explanatory view of the above-mentioned example.

[Drawing 9] It is the top view of an example of an embossing tape.

[Drawing 10] After the hold crevice of an embossing tape is loaded with electronic parts (FET component), it is the explanatory view of signs that a closure tape is installed.

[Drawing 11] It is the perspective view of an example of the frame for manufacture which supports electronic parts (FET component).

[Drawing 12] It is the perspective view of the FET component which is an example of the electronic parts which invention-in-this-application equipment deals with, and is started from the frame for manufacture shown in drawing 11 .

[Drawing 13] It is drawing showing the example of the property range where an FET component is usable.

[Drawing 14] It is the table showing the example of a classification rank division of an FET component.

[Drawing 15] It is the flow chart which shows the example of control in the case of carrying out a classification division to the rank which shows an FET component with the property shown in drawing 13 to drawing 14 .

[Description of Notations]

F The frame for manufacture

P Electronic-parts simple substance

2 Handling Device

3 Measuring Device

6 Taping Equipment

6a, 6b-- Taping device

9 Adsorption Collet

10a, 10b-- Label mark stamp

[Translation done.]